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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	09/824,960
Filing Date	April 3, 2001
Inventor(s)	Grenville J. Armitage
Group Art Unit	2154
Examiner Name	Aaron C. Perez-Daple
Attorney Docket Number	29250-001041/US

### ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment  <input type="checkbox"/> After Final  <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Response to Missing Parts/ Incomplete Application  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application)  <input type="checkbox"/> Letter to the Official Draftsperson and _____ Sheets of Formal Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition  <input type="checkbox"/> Petition to Convert to a Provisional Application  <input type="checkbox"/> Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group  <input type="checkbox"/> LETTER SUBMITTING APPEAL BRIEF AND APPEAL BRIEF (w/clean version of pending claims)  <input checked="" type="checkbox"/> Appeal Communication to Group (Notice of Appeal, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input type="checkbox"/> Other Enclosure(s) (please identify below):
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### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name John E. Curtin	Reg. No. 37,602
Signature			
Date	October 31, 2005		



**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

**Application Number: 09/824,960**

**Filing Date: April 3, 2001**

**Appellant: Grenville J. Armitage**

**John E. Curtin  
For Appellant**

**REBUTTAL BRIEF**

**This is in response to the Examiner's Answer mailed August 30, 2005**



PATENT  
29250-001041/US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

Appellants: Greenville J. Armitage **Appeal No.** \_\_\_\_\_  
Serial No.: 09/824,960 Group: 2154  
Filed: April 3, 2001 Examiner: Jungwon Chang  
For: SUPPORTING MOBILE HOSTS ON AN INTERNET PROTOCOL  
NETWORK

**REBUTTAL BRIEF**

U.S. Patent and Trademark Office  
220 20<sup>th</sup> Street S.  
Customer Window Mail Stop Appeal Brief - Patents  
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Arlington, VA 22202

October 31, 2005

Dear Sir:

**REPLY TO EXAMINER'S ANSWER**

**The Section 103 Rejections**

**1.) Claims 1, 2 and 4-14**

Claims 1, 2 and 4-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Perkins (RFC 2002

<http://www.ietf.org/rfc/rfc2002.text?number=2002>, October 1996) (herein referred to as "Perkins") in view of Harvey et al., U.S. Patent No. 6,189,039 ("Harvey"). Appellant notes that the Examiner again admits in the Examiner's Answer that Perkins does not disclose mapping, at [a] second interface of [a] home router, unicast addresses as packets received at the second interface and destined to members of [a] subnet (U1), to group addresses (Mx) assigned to

members of the subnet. To make up for this deficiency the Examiner again relies on Harvey. Applicants respectfully disagree for at least the following reasons.

Neither Perkins nor Harvey disclose the assignment and mapping steps required by the claims of the present invention. More specifically, each of the rejected claims requires the steps of, among other things:

assigning [a] first interface of [a] home router and mobile hosts corresponding group addresses (Mx) according to a defined relation with respect to unicast network addresses, and

mapping at [a] second interface of the home router, unicast addresses of packets received at the second interface and destined to members of the subnet (U1), to the group addresses (Mx) assigned to the members of the subnet.

In Perkins, a mobile is assigned either “a care-of-address” or a “co-located, care-of-address”. A care-of-address is one that is associated with a “foreign” agent the mobile is registered with. Similarly, a co-located, care-of-address is an address that is associated with a “foreign” network address. The co-located, care-of-address is obtained from a new foreign network that a mobile attaches itself to. Said another way, when a mobile roams from one network to another the network it joins is referred to as a foreign network. Upon joining this network the mobile is assigned a co-located, care-of-address.

Nowhere in Perkins is there a disclosure of an interface of a home router that is assigned a group address, as is required by the claims of the present invention. In addition, nowhere in Perkins is it disclosed or suggested that a mobile host is assigned a group address. The care-of-addresses or co-located, care-of-addresses assigned to mobiles in Perkins or not group addresses; they are network or agent specific addresses.

As explained in the present specification, the group addresses, Mx, are assigned to both the mobile host and home router. When a mobile host travels from network to network it still retains the same group address. (see p.5 of Appellants opening brief, bullet no. 2 and p. 6 bullet no. 2; steps 14 and 24 in

FIG. 1, Appendix B of Appellant's opening brief). In contrast, when a mobile in Perkins moves and joins a new network it is assigned a co-located, care-of address which is derived from the network it joins. Neither of the addresses assigned to a mobile host in Perkins equate to, or are suggestive of, the group addresses that are assigned to mobiles and home routers in the claims of the present invention.

Similarly, neither Perkins (as admitted by the Examiner) nor Harvey discloses the mapping step of the claimed invention.

Appellant takes note of the statements made by the Examiner on page 8 of the Examiner's Answer. The Examiner points out that he is only relying on Harvey "to teach the mapping between unicast and multicast (group) addresses." Yet to make up for the deficiencies in Perkins, Harvey needs to teach more than the mapping between unicast and multicast group addresses; it needs to teach the claimed assignment step (which it does not) and the specific mapping steps in claim 1 of the present invention.

More to the point, the mapping step in the claims of the present invention makes use of the group addresses, M<sub>x</sub>, which were assigned during the previous assignment step. More particularly, these groups are previously assigned to a first interface of a home router and mobile hosts. In contrast, the so-called multicast techniques in Harvey have nothing at all to do with a home router and mobile hosts. Thus, Harvey does not disclose or suggest the mapping of unicast addresses, destined to members of a subnet U<sub>1</sub>, to group addresses M<sub>x</sub> that were previously assigned to a first interface of a home router and to the intended mobile hosts.

Harvey uses the word multicast to identify the forwarding of a message from one point to many points. This need not be the case in the present invention. In the present invention, a unicast address may originate with one host and be received by another host where the receiving host is associated with a multicast address. In other words, the claims of the present invention

allow point-to-point messages to be sent on a using a multicast address unlike the multicast techniques in Harvey.

Applicants disagree that the “teachings of Harvey have obvious applications in a network having mobile hosts” as also stated by the Examiner in the Examiner’s Answer. Applicants respectfully request that the Examiner point out where in Harvey there is any teaching or suggestion that Harvey’s mapping can be used in a mobile host environment, in particular, in an environment where a mobile host moves from one network to another.

Applicants respectfully draw the Examiner’s attention to the first four lines of the “Background of the Invention” section of the present specification which states that: “This invention relates to a technique that enables a mobile node or host to communicate with other nodes associated with a wired information network, notwithstanding changes in the mobile host’s attachment to the network”. Given the fact that the inventions described in the specification and claims of the present application are directed at mobile host, it is respectfully submitted that any reference which does not disclose or suggest its applicability to a mobile host environment can in no way anticipate or render obvious claims of the present invention.

One of ordinary skill in the art, upon realizing that Perkins lacks the assignment and mapping features of the claims of the present invention, would look for a disclosure which explicitly or suggestively discloses such steps. No such steps are disclosed or suggested in Harvey. There is no mention of a home router which is used with mobile hosts, of group addresses Mx that are assigned to interfaces of a home router and mobile hosts, and no mention of mapping, at a second interface of a home router, of unicast addresses to group addresses that are assigned to members of a subnet, as required by the claims of the present invention.

The Examiner repeats his position that it is appropriate to combine the teachings of Perkins and Harvey. Applicants respectfully disagree. Though Perkins does not disclose claimed features of the present invention, it arguably

is aimed at solving problems that occur when a mobile host moves from one network to another. In contrast, Harvey is totally unconcerned with the movement of a mobile host. Instead, Harvey is concerned with the streaming of data from one host to a number of hosts. One of ordinary skill would not be motivated to combine the teachings of Harvey with Perkins to solve problems related to the tracking of a mobile host because the unicast/multicast techniques in Harvey are not related to the tracking of a mobile host.

In Perkins, a mobile host is assigned the address of a foreign network. It is not assigned a multicast address. Perkins has no use for the multicast addresses disclosed in Harvey. The Examiner does not explain how a mobile host in Perkins, upon joining a foreign network and being assigned the address of such a network, could be assigned a multicast address disclosed in Harvey without interfering with Perkin's process of assigning foreign addresses. It is respectfully submitted that any such attempt to do so would require the principle of operation of Perkins (or Harvey) to be changed which is impermissible (MPEP §2143.01).

Accordingly, Appellants respectfully request that the members of the board reverse the rejections of claims 1, 2, 4-14 and allow these claims.

**2.) Claim 3**

Claim 3 was rejected under U.S.C. §103 (a) as being unpatentable over Perkins in view of Harvey and in further view of U.S. Patent No. 6,131,120 to Reid ("Reid").

Appellant respectfully submits that claim 3 is patentable over the combination of Perkins, Harvey and Reid for at least the reasons set forth above with respect to claim 1 and because Reid does not make up for the deficiencies of Perkins and Harvey.

Accordingly, Appellant respectfully requests that the members of the Board reverse the decision of the Examiner and allow claim 3.

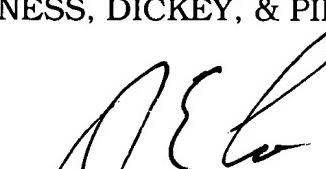
**Conclusion**

Appellant respectfully requests that the members of the Board reverse the Examiner's rejection of claims 1-14 and allow these claims.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By: 

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